

Serial No. 09/855,148
Docket No. NEC 142491
Amendment D

REMARKS

Claims 2, 7, 8 and 9 have been amended to clarify the invention and to incorporate the limitations of claim 5, which has been cancelled. No new matter has been entered by any of the foregoing amendments.

Turning to the Examiner's rejection of claims 2 and 4-9 under 35 USC § 103 as obvious over Applicant's admitted prior art in view of Shin et al. U.S. Patent No. 6,086,443, the Examiner's rejection is in error. Claims 2, 7, 8 and 9 "each require spacers that have an initial size in the cell gap direction larger than their appropriate cell gap, and that at least one of these first spacers is elastically deformed from initial size to a size corresponding to the appropriate cell gap before said seal member is deformed to said appropriate cell gap". Neither Applicant's admitted prior art nor Shin et al. teach this feature. Applicant's admitted prior art does not teach spacers that are larger and the cell gap direction than their appropriate cell gap. Thus, how could Applicant's admitted prior art possibly teach that the spacers are deformed from an initial size to a size corresponding to an appropriate cell gap before the seal member is deformed? Shin et al. does not supply this missing teaching. As is shown in the comparison between Applicant's Figure 3B and Shin's Figures 5 and 6 shown below:

Shin et al. Figures 5 and 6

Applicant's Figure 3B

FIG. 5

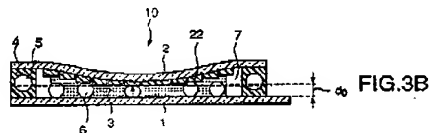
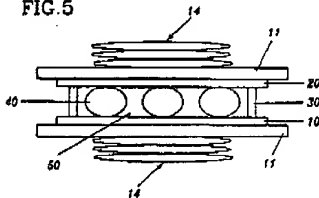


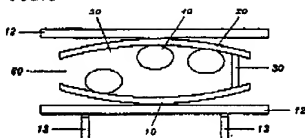
FIG. 3B

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03102
TEL. 603.668.1400
FAX. 603.668.8567

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FIG. 6



Shin deforms each of the spacers 40 and the sealant 30 using press system 14 at the same time. How can Shin possibly deform at least one spacer to the appropriate cell gap prior to deforming the seal to the appropriate cell gap? Thus, neither Applicant's admitted prior art nor Shin et al. can achieve or render obvious Applicant's claims 2-4, nor 6-9 nor new claims 11-17.

Nevertheless, claims 2, 7, 8 and 9 have been amended to include the features of claim 5. Neither Applicant's admitted prior art nor Shin et al. teaches a relative value of an initial size of the first spacers to the appropriate cell gap being in the range of 102.9% to 107.0%. Applicant's admitted prior art does not even teach a spacer having a size larger in the cell gap direction than the appropriate cell gap. Shin et al. does not supply the missing teaching.

Shin et al. (U.S. Patent No. 6,086,443) merely indicates that a relative value of the initial average size of the spacers to the appropriate cell gap is by 110-130%. This range does not indicate the range set forth in the new claim 2 combined with the present claim 5, i.e., a relative value of an initial average size of said first spacers to said appropriate cell gap is within a range from a value larger than 102.9% to a value smaller than 107.0%. In addition to such range difference, Shin et al. does not disclose, teach or suggest the falling-drop method at all.

In Shin et al., as shown in Fig. 6, since a sealant 30 must be fixed prior to injecting the liquid crystal, the cell gap at the central portion does not become smaller when that at the peripheral portions any more. This is quite in contrast to Applicant's claimed invention where

HAYES SOLGWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

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the seal member is not hardened yet at the step of filling the liquid crystal and the spacer member is deformed together with the liquid crystal during the step of putting the panel under atmospheric pressure to deform the spacer through a deformation of the panel due to difference between said atmospheric pressure and negative pressure inside the panel as set forth in new claim 2.

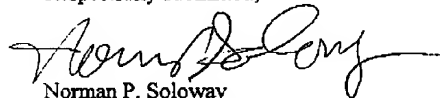
Accordingly, the function of the cited over-sized spacers 40 is quite different from that of the spacers of the present invention used in the falling-drop method. Such functional differences are significant missing teachings to provide a motivation to combine Shin et al. and other references. Therefore, we believe that the Examiner is simply resorting to so-called afterthought or hindsight and thus the rejection totally lacks ground.

The foregoing amendment essentially merely incorporates the limitations of claim 5 into the several independent claims. Thus, no new issues have been raised that would require further search or consideration. Thus, entry of the foregoing amendment, and allowance of the application are respectfully requested.

Form PTO-2038 in the amount of \$430.00 is enclosed for the Extension Fees.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391.

Respectfully submitted,



Norman P. Soloway
Attorney for Applicant
Reg. No. 24,315

HAYES SOLOWAY P.C.
130 W. CLUENING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

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Thoi V. Duong of the United States Patent and Trademark Office at facsimile number
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NPS:sb

HAYES SOLOWAY P.C.
130 W. CLUSKING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567